

# THE ROAD OF DIGITAL TRANSFORMATION OF JINGDONG GROUP: EFFECTIVENESS AND IMPLICATIONS

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**Abstract:** Finance is the entry point and linkage point of enterprise digital transformation, the essence of which is to use digital technology as the support, use data to drive financial value creation, and empower enterprise management innovation. This paper takes JD as an example, based on the digital transformation data of its financial statements and annual reports, through the method of case study, discusses the logical framework of its financial digital transformation and its impact on enterprise financial performance. It is found that JD has realized the big data of financial analysis and the intelligence of financial accounting, which effectively reduces costs, improves human capital efficiency and promotes innovation. Its success comes from the application of digital technology and the transformation of business models, which brings significant improvement to the financial performance of enterprises. The paper not only enriches the relevant research on financial digital transformation, but also provides practical guidance for enterprises to cope with digital challenges and achieve sustainable growth.

**Keywords:** Digital transformation; Financial performance; Financial analysis; Value creation

## 1 INTRODUCTION

The development direction of financial digitalization is still a topic of great concern. General Secretary President Xi pointed out in the 34th collective study of the Political Bureau of the Central Committee: "It is necessary to promote the integrated development of the digital economy and the real economy, grasp the direction of digitalization, networking and intelligence, promote the digitalization of manufacturing, service industry, agriculture and other industries, and use new Internet technologies to carry out an all-round and full chain of traditional industries. To improve total factor productivity and give full play to the amplification, superposition and multiplier role of digital technology in economic development. Therefore, improving enterprises to better adapt to the Internet environment from the outside, improving the digital financial process, and realizing the digital construction of the industry as a whole is inseparable from the digital development of finance.

JD has the characteristics of large-scale product categories, portability, platform security, etc., in addition to providing a variety of payment methods, in which the rapidity of JD's logistics is its biggest feature and special features, basically receive the goods on the same day after placing an order without a long time of waiting, which greatly meets the psychological needs of consumers. Importantly, JD, as China's leading e-commerce logistics company, has been committed to digital transformation, the digital transformation of logistics enterprises research has played an excellent role in demonstrating the digital transformation of logistics companies, through the digital transformation of the JD company's research can be used by other similar logistics companies to learn from the transformation program, and to solve their problems. However, JD in the digital logistics information technology, there are still some management and technical bottlenecks, in the digital input costs and capital return there are still inefficient and irregular behavior. Based on the requirements of promoting enterprise quality and efficiency, improving information quality, accelerating the road of enterprise digital transformation and the existing research literature on this issue is not sufficient. This paper will focus on the impact of digital transformation on corporate financial performance, combined with case studies to analyze the above issues.

The research in this paper is not only an in-depth analysis of JD financial digital transformation practice, but also a comprehensive examination of the application effect of digital transformation in the field of financial management. By revealing JD's strategic choices, implementation paths, and effectiveness in the process of financial digital transformation, this paper provides a new perspective on understanding the relationship between digital transformation and corporate financial performance.<sup>[12]</sup> At the same time, for a large number of enterprises, the research conclusions of this paper have important reference value, which helps them seize the opportunities of digital transformation, optimize financial management processes, improve decision-making efficiency, and thus occupy a favorable position in future market competition.

## 2 THEORETICAL BASIS AND LITERATURE REVIEW

### 2.1 Theoretical Basis

#### 2.1.1 Theory of synergistic effect

Synergy, simply put, is the effect of "1+1 > 2". Synergy effect can be divided into two cases, external and internal, external synergy refers to a cluster of enterprises due to mutual collaboration and sharing of business behavior and

specific resources, and thus will be higher than as a separate operation of the enterprise to achieve higher profitability; internal synergy refers to the enterprise production, marketing, management of the different segments, different phases, different aspects of the common use of the same resources to produce the overall effect. In the digital era, JD should utilize digital technology to achieve information-driven business transformation in order to adapt to new market demands, achieve real-time data sharing and better management, and support the enterprise's decision-making and operational needs[1]. This approach will help improve efficiency, reduce errors and better meet regulatory requirements for sustainable development.

### **2.1.2 Information asymmetry theory**

Information asymmetry refers to the different information held by individuals in a transaction. In social, political, economic, and other activities, some members possess information that other members cannot, resulting in information asymmetry. In market economy activities, there are differences in the understanding of relevant information among various personnel; People who have sufficient information are often in a favorable position, while those who lack information are in a disadvantageous position. Asymmetric information may lead to adverse selection.

Logistics companies also suffer from serious information asymmetry. There is a phenomenon of information asymmetry between logistics enterprises and financial information. The emergence of digitalization can greatly alleviate this contradiction[1]. By innovating traditional business and marketing models, information asymmetry can be improved and the harm caused by information asymmetry can be reduced. Business finance integration organically integrates the business processes, financial accounting processes, and management processes of enterprises to better manage and process their financial and business data.

### **2.1.3 Signal transmission theory**

Research by Western financiers shows that under information asymmetry, there are three common signals for companies to transmit internal information to the outside world: (1) profit declaration; (2) dividend declaration; and (3) financing declaration. Compared with the maneuverability of the accounting treatment of profits, dividend announcement is a more credible signal model. The application of signal transmission theory in the financial field began with Ross's research. He found that managers with a large amount of high-quality investment opportunity information can transmit information to potential investors through the choice of capital structure or dividend policy. This paper studies the capital structure of JD. The capital of an enterprise for a certain period of time can be divided into debt capital, equity capital, short-term capital and long-term capital. And the profit analysis method was used to evaluate the solvency and operating capacity of JD.

## **2.2 Literature Review**

Digital transformation is a change measure that uses digital technologies, such as big data, cloud computing, and artificial intelligence, to drive business organizations to transform their business model, organizational structure, and corporate culture. Previous studies have shown that digital transformation has an impact on the internal of the enterprise, and the results of the study by Chenyu Zhao show that digital transformation can significantly improve the total factor productivity of the enterprise. Enterprise digital transformation can effectively improve the performance of the main business and the driving effect on performance shows a significant asymmetric effect under the influence of enterprise property rights[2]. Deng Meng believes that JD Logistics through information digitization, business digitization, supply chain digitization to achieve the information sharing, business connectivity, supply chain optimization of the point line digital type, and then realize the traditional business value appreciation and new business value creation, and ultimately enhance enterprise value[3]. It has become a consensus that enterprises enhance their value through digital transformation. The analysis of Ye Jiangfeng and Gu Mengru shows that the theoretical basis of digital transformation affecting enterprise performance mainly includes dynamic capability theory, strategic flexibility theory, social network theory, meaning construction theory and resource orchestration theory[4]. Digital transformation has positive, negative and inverted U-shaped effects on firm performance. In addition to intra-firm, digital transformation also has an impact on the industry. Zhang Zhengang found that digital transformation has a significant positive effect on business model innovation[5].

Digital transformation will also affect enterprise performance. Jiang Qinqin believes that the digital transformation of logistics enterprises mainly affects the performance of logistics enterprises by increasing media exposure, reducing production costs and managing costs. In addition, other factors will also affect the performance of the enterprise[6]. Li Zengquan found that when managers hold a certain number of the company's shares, the shareholding ratio has a significant impact on the performance of the enterprise. The human capital of the enterprise management team and the R&D investment of the enterprise are significantly correlated with the performance of the enterprise[7]. Zhu Yan believes that the human capital of the enterprise management team affects the performance of the enterprise through the implementation of the R&D investment of the enterprise[8]. Chen Deping found that there is an interaction between the capital structure of China's GEM enterprises and the performance of enterprises[9]. Zhang Xiangjian and others believe that the CEO's control determines the strategic direction and innovation ability of the enterprise, and plays a significant positive role in promoting the performance of the enterprise[10]. The continuity of government subsidies by Cao Yang and others has a positive regulatory effect on R&D investment and enterprise performance[11].

In summary, there are few studies on the impact of digital transformation on performance of logistics companies and digital transformation. Therefore, this paper chooses to study the impact of JD Logistics' digital transformation on

financial performance. Using DuPont analysis to better digitize the impact on finance, analyze the impact of JD's financial digital transformation on its financial performance[12].

### 3 DIGITAL TRANSFORMATION OF JD

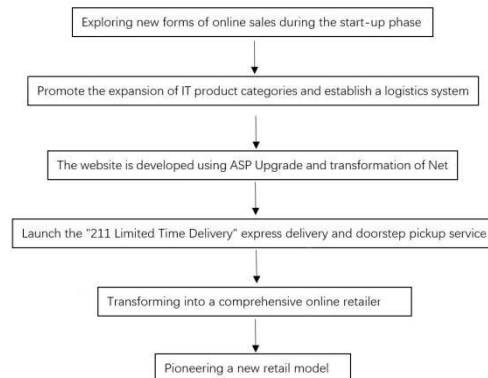
#### 3.1 Overview of the Case Enterprise

JD is a leading integrated online retailer in China, with its core business covering three major areas: retail, technology and logistics. JD Retail adheres to the business philosophy of “trust-based, customer-centered value creation” and relies on strong supply chain, data, technology and marketing capabilities to accurately match consumer demand and innovate consumption scenarios. JD Logistics, established in 2007, has become the world's leading technology-driven supply chain service provider, taking technology as the core to promote the efficient and sustainable development of global distribution. JD Technology, as a business sub-group, focuses on providing digital intelligence solutions for government and enterprise customers. Relying on cutting-edge technologies such as AI, cloud computing, big data, and the Internet of Things, and combining JD's profound supply chain experience, JD Technology has become an industry-leading digital intelligence service provider, and is helping to upgrade the city and industry. Through comprehensive digital transformation, JD Group has not only reshaped the retail industry, but also led the industry in innovation in logistics and services, and promoted the development of digital intelligence in the social economy.

#### 3.2 Digital Transformation History of Case Companies

##### 3.2.1 JD digital transformation stages

JD's digital transformation has gone through a total of four stages, mainly around the development of technological innovation and the development of the operating model of these two aspects, Figure 1 shows the digital transformation process of JD.



**Figure 1** Digital transformation process of JD

The first stage of JD's development is the start-up period. The start-up period of JD's digital development was around 1998 to 2006. In 1998 JD was established in Zhongguancun Overseas Market, mainly selling optical and magnetic products. During the SARS outbreak in 2003, JD seized the opportunity to start experimenting with online sales as a new sales situation, and this trend-catering development provided the company with new impetus. At the same time, Liu Qiangdong began to build their own Web site, from the outside to buy a set of ASP online shopping mall software, and on this basis, gradually developed and maintained, which is the first generation of Web sites, “JD multimedia network” in its initial form. JD in 2004 launched a self-management mode website, so JD transitioned online into the field of e-commerce. In 2005, Liu Qiangdong closed all offline 12 stores, specializing in e-commerce, JD tried to do IT digital full category, which is also a huge impact of the JD Group's measures, the end of 2006, JD sales reached a huge figure of 80 million yuan.

The second stage of JD's development is the booming period. This stage is mainly between 2007 and 2011. In 2007, JD gradually promoted the expansion of IT product categories, obtained the first large amount of financing, and began to build a logistics system. Since then, JD in the category expansion and self-built logistics continued to make great efforts, fruitful. In 2008, JD using the program began to shift from ASP to .Net, at the same time in June of that year, JD also completed the category expansion of 3C products. In 2008 summer, Donny and his team, completed by the ASP to .Net upgrade transformation, this new version of the site ran smoothly until 2010. Order volume from the average daily growth of a few thousand single to more than 100,000 single, can be said to have achieved a leap in development. In 2010, the POP platform on-line, JD with the launch of this platform, “211 time limit” speed delivery and door-to-door pickup service, this move led to a new standard of online retail industry. At the end of that year, JD also began to officially operate the open platform, prompting annual sales of 10.2 billion yuan. The following year, JD obtained \$1.5 billion in financing, mobile client on-line, the launch of the parcel tracking system, improve the level of service, increase the “7 × 24 hours customer service phone”, and formally enter the B2C online medicine and luxury goods field.

JD all categories gradually improve, and gradually transformed into a comprehensive online retailer, since then JD's business scope has been further expanded, sales increased greatly.

The third stage of JD's development is the period of capitalization and strategic layout, roughly between 2012 and 2016, at this stage, JD began to pursue scale, specialization, and other more in-depth development, and gradually expanded the group's strength and influence through acquisitions, investments and strategic cooperation. In May 2012, JD's Java version of the trading system was online, which also marked the system he used by the . NET to Java architecture. The newly replaced system can prohibit the system from reading the database directly while providing services to the outside world, and the system database was also changed from SQL Server to MySQL. finally, in November 2012, JD opened the logistics service system platform, and formally laid out the open logistics service and payment system.

Finally, the fourth stage of JD's development is a period of comprehensive transformation. 2019 JD established a retail group. During this period, in order to assist JD's core business and create great value for the majority of business partners, JD, with its huge business scale, perfect retail infrastructure and advanced technology, began to provide comprehensive supply chain services, and exported logistics services and technical solutions to third parties. By the end of 2019, the scope of JD's business has encompassed many areas, including retail, digital technology, logistics, technology services, health, SmartCloud and overseas. The positioning of JD Group has also changed from "a leading technology-driven e-commerce company" to "a leading supply chain-based technology and service enterprise". Since then, JD has begun a comprehensive transformation from "retail" to "retail + infrastructure service provider". At the 2021 JD Cloud Summit, JD Cloud officially released StarDB, an independently designed and developed financial-grade domestic distributed database, which is equipped to support high concurrency online transaction processing of massive data, and has important features such as sensorless distributed, financial-grade high availability, high compatibility with MySQL, elasticity and scalability, security compliance, and intelligent operation and maintenance control. JD reformed again in 2022 to create a new retail pattern.

### 3.2.2 JD's new mode of digitization

From the recent development trend, with the accelerated integration of the real economy and the digital economy, more and more enterprises are beginning to promote the procurement digitalization process. How to efficiently realize the channel shift from offline to online has become a problem for many industrial brands. Therefore, JD has created a new model to solve this problem, the JD New Retail Model. Under this model, JD will provide personalized recommendation services based on consumers' purchase history and preferences, making it easier for consumers to find the goods they need. This corresponds to one of the features of JD's new retail model, "new type of retail", which breaks the geographical retail limitations of the traditional retail industry and allows consumers to buy goods at any time and any place. The core of JD's new retail model is "scenario-based marketing", which combines online sales and offline experience to create a new type of retail model. It will improve the consumer shopping experience while also providing more sales opportunities for offline stores. Not only that, JD also pushes product information to more consumers through offline stores, social media and other channels, increasing sales and brand awareness. Another innovation of JD's new retail model is the "smart store". Under this model, JD provides smarter services for brick-and-mortar stores through artificial intelligence technology and big data analysis.

Overall, JD's new retail model integrates online and offline, and it provides consumers with a more comprehensive, smarter and more convenient shopping experience through innovative methods based on scenario-based marketing, new types of retail and smart stores, increasing sales opportunities and contributing to the transformation and upgrading of the retail industry.

## 4 THE IMPACT OF JD'S DIGITAL TRANSFORMATION ON FINANCIAL PERFORMANCE

### 4.1 Financial Indicator Analysis

#### 4.1.1 Debt paying ability

This paper adopts the financial indicator analysis method, aiming to conduct a comprehensive, in-depth and detailed analysis of the overall operational status and performance of the enterprise. By selecting a series of specific accounting competency indicators, especially focusing on the company's debt paying ability and operational capability, precise and detailed local analysis is implemented in order to provide a more thorough and specific examination of the company's operating conditions.

This paper calculates five indicators from 2016 to 2023, including current ratio, quick ratio, asset liability ratio, cash flow ratio, and ROE, to analyze JD's debt paying ability. The calculation results are shown in Table 1.

**Table 1** Solvency Analysis of Jingdong 2016-2023

measures/year	2016	2017	2018	2019	2020	2021	2022	2023
current ratio	2.20	2.00	1.60	1.33	1.35	1.35	1.32	1.16
quick ratio	2.00	1.82	1.40	1.17	1.01	0.99	1.01	0.89
Asset liability ratio	55.14%	59.28%	60.41%	58.56%	59.13%	50%	54%	53%
cash flow ratio	0.24	0.53	0.41	0.33	0.24	0.19	0.22	0.22
ROE	10.00	0.30	4.30	16.60	0.26	0.04	0.01	0.08

After digital transformation, the company's current ratio is at a relatively safe level, indicating that the company has sufficient current assets to cover its short-term debt. This reflects the company's relatively strong debt paying ability, with a higher balance of current assets than current liabilities, which reduces short-term debt paying risks. In the past two years, the current ratio has slightly decreased, but the company still has sufficient current assets to cover its current liabilities, although this ability has slightly weakened compared to before. A decrease in the current ratio may indicate a decrease in the company's current assets or an increase in current liabilities. The difference between the company's current assets and current liabilities will further narrow in 2023. Although the company is still able to repay its short-term debts, its debt paying ability has significantly weakened. In general, the quick ratio of a company should reach 1:1. From the above table, it can be seen that JD's quick ratio fluctuated around 1:1 from 2020 to 2023. JD's quick ratio is close to 1, indicating that JD's short-term debt paying ability has been low in the past two years. Repaying short-term liabilities requires the use of other non current assets, which imposes a certain interest burden on the sale of inventory, etc. The total debt of a company is slightly higher than the total shareholder equity, which is generally considered a relatively safe level, indicating that the company has sufficient shareholder equity to support its debt.

In 2021, the company's debt paying ability is relatively strong, and the balance of shareholder equity can cover most of the debt, which reduces the risk of debt repayment. The increase in debt-to-equity ratio in the second year indicates an increase in the total liabilities of the company relative to the total shareholders' equity. This may mean that the company has increased debt financing or reduced shareholder equity. In 2023, the debt-to-equity ratio slightly decreased, which means that the difference between the company's total liabilities and total shareholder equity has decreased. Notwithstanding the company still has a certain debt burden, its debt paying ability has slightly improved. The decrease in debt-to-equity ratio may indicate that the company is adjusting its debt management strategy or taking measures to increase shareholder equity to reduce debt repayment risk. From 2020 to 2023, JD's ROE will first decrease and then increase, remaining relatively stable. Meanwhile, ROE will grow rapidly from 2022 to 2023. In 2023, JD.com will enhance its profitability by adjusting its capital structure, increasing debt, and increasing buybacks. The asset liability ratio is a comprehensive indicator for evaluating a company's debt level. It is also an indicator that measures a company's ability to use creditor funds for business activities, and reflects the safety level of creditors issuing loans. JD's asset liability ratio has remained relatively stable, with some growth from 2020 to 2023, but within a controllable range. The financial structure is relatively healthy and has high asset utilization efficiency.

#### 4.1.2 Capacity analysis

This paper calculates the operating capacity of JD.com by calculating the turnover rate of accounts receivable, inventory turnover rate, sales profit margin, total asset turnover rate and current asset turnover rate in 2016-2023. The calculation results are shown in Table 2.

**Table 2** Analysis of JD's Operating Capacity from 2016-2023

measures/year	2016	2017	2018	2019	2020	2021	2022	2023
Accounts receivable turnover ratio	20.28	22.30	33.64	66.69	55.31	10.85	7.15	7.87
Inventory turnover	8.93	8.82	9.24	9.66	10.90	21.76	11.71	12.67
Sales profit margin	1.50	-0.144	0.91	1.52	4.12	-0.62	3.78	1.22
Total Asset turnover	2.12	2.10	2.35	2.46	2.19	2.07	1.92	1.77
Current asset turnover	3.99	3.56	3.22	3.29	3.99	3.56	3.22	3.29

From the above table, it can be seen that the turnover rate of accounts receivable of JD.com from 2020 to 2023 is gradually decreasing. In 2021, the turnover rate of JD.com's accounts receivable is high, indicating that the capital operation ability is strong and the debt repayment capacity is good. However, it began to decline to about 7 in 2022, indicating that JD.com's working capital is too much to stay on the accounts receivable, and the collection of accounts is not good, which affects the normal capital turnover and solvency, resulting in the non-flow of current assets and reducing its operating capacity. At the same time, it can be seen from the above table that JD.com from 2020 to 2023 The number of inventory turnovers is gradually decreasing. JD.com has a large inventory turnover, indicating that the sales are good. But too big is also detrimental to the enterprise. JD.com may encounter problems such as untimely repayment, insufficient supply of products, shortage of inventory, and poor capital turnover. However, the number of inventory turnover of JD.com has decreased in the past two years, indicating that the storage realization of JD e-commerce stores is fast, the time spent on the inventory is short, and the inventory management is efficient. At the same time, JD.com is facing some operational challenges. The negative sales margin indicates that the cost of the company's operating activities this year exceeded the sales revenue, resulting in losses. This may mean that the company has problems with cost control, pricing strategy or market expansion. In terms of resource management, JD.com may fail to make effective use of its resources, such as raw materials, labor or capital, resulting in high costs. In terms of sales strategy, the sales strategy may not be effective enough to attract enough customers or fail to sell products at a profitable price.

In the past two years, the operation of JD.com has improved, and the significant increase in sales margins shows that the company has significantly improved its operating capacity in this year. From the above table, it can be seen that the cost profit margin of JD.com's cost and expense profit margin from 2020 to 2023 is gradually increasing, indicating that the

cost of JD.com's profit is gradually reduced, the cost and expense control is getting better and better, and the profitability is getting stronger. The company has adopted effective cost control measures, optimized pricing strategies, or successfully expanded market share. In terms of resource management, JD.com has managed its resources more effectively, reduced waste, and improved production efficiency. At the same time, in terms of market expansion, JD.com may have successfully expanded the market and attracted more customers, thus increasing sales revenue, and the company has entered a period of stable operation. Although the sales profit margin has decreased compared with the previous year, it still remains positive, indicating that the company's operating capacity is relatively stable. From the above table, it can be seen that the four-year current asset turnover rate of JD.com shows a trend of decreasing first and then increasing. The turnover rate of current assets has increased, the turnover rate of current assets of JD.com has accelerated, and the profitability of JD.com has increased relative to saving current assets.

#### 4.1.3 Performance benchmarking analysis

Using the performance benchmarking method, it first benchmarks the history of its own digital development within the JD enterprise, which established a retail group in 2019. During this period, JD, with its huge business scale, perfect retail infrastructure and advanced technology, began to provide comprehensive supply chain services, and exported logistics services and technology solutions to third parties. Since then, JD has begun to gradually develop the road of mature digital display, creating a new retail model. So the four years before and after the key step of its digital transformation are chosen for comparison.

Overall, the logistics and warehousing system of JD Group is more complete after the digital transformation. There are very complete warehouses and distribution networks throughout the country, which makes inventory and accounts receivable turnover fast. In the past five years, JD's operating income is a continuous increase. As of December 31, 2022, JD's operating income reached 295.41 billion yuan, doubled compared to 2019. In terms of net profit, although JD shifted from a loss-making status to a profitable status, it has realized a profit in the three years of 2019, 2020, and 2022, with 2019 and 2020 being years of rapid development for the company. 2021 to 2023 cost and expense margins of -2.33%, 12.17%, 26.99%, respectively, a gradual increase in the trend. It shows that the price JD pays to obtain profits is gradually reduced, cost and expense control is getting better and better, and profitability becomes stronger. In terms of profit structure, in the past five years, JD's performance of all profit margins is at an excellent level in the industry, and continues to increase, and the proportion of revenue and all expense structures are stable. For net profit, in addition to 2021 are steadily increasing, but also in 2019 for the first time to achieve profitability, indicating that JD is in a stable upward stage, JD's digital transformation makes the performance in a positive impact.

## 4.2 Cost Benefit Analysis

From a cost-benefit perspective, the initial cost of digital transformation for enterprises is relatively high, but the long-term economic benefits are also considerable. The improvement of digital technology and open environment has led to changes in market structure, allowing enterprises to grasp market and customer demands at any time, shorten business operation time, reduce business processing errors, lower trade management costs and inventory costs, improve service quality, accelerate capital flow, and thus enhance the economic benefits of enterprises.

From the perspective of the development stage of JD's digital transformation, the cost of system construction in the early stage is essential, which is a variety of costs incurred in the process of establishing the system of the enterprise, mainly including the cost of human, financial and material inputs for the construction of the system's badlands. From JD's financial statements, it is calculated that the degree of its scientific research and development investment is shown in the figure, which is a stable upward trend from 2016 to 2023. Moreover, in order to catch up with the trend of the times and seize business opportunities, JD must also update its system at the right time, and the costs required in this regard are also huge. These above costs are invested heavily in the early stages while also bringing direct, indirect and potential economic benefits to JD's future.

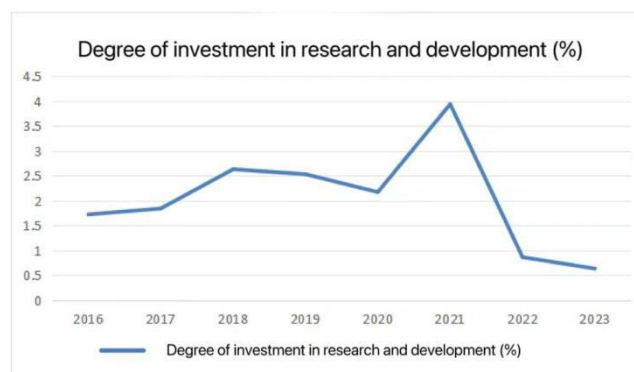


Figure 2 JD 2016-2023 R&D Investment

#### 4.2.1 Direct benefits

By establishing an online JD digital website and using online publicity to establish intermediary image and product information, online advertising can transmit the promotion information of enterprises to potential customers around the

world to increase the sales and purchase opportunities of enterprises; use the digital network to trade to reduce transaction costs and improve marketing efficiency. In traditional logistics, the supply chain consumes 25% of the operating cost, while JD improves supply chain management by using the convenience of digitalization, thus reducing the cost by more than 10%; digitalization can reasonably arrange the purchase of raw materials and production according to order, thus reducing inventory and accelerating capital turnover; reducing intermediate links to save information. Cost creates conditions for enterprises to obtain accurate information in a timely manner.

#### **4.2.2 Indirect benefits**

It has improved JD's management efficiency and service level to improve JD's competitiveness in the industry. According to the data of Oriental Fortune Network, the valuation level of JD is now in the industry 11; it has expanded its business scope and scale to achieve economies of scale, and strengthened communication with customers to expand the market scale. According to the statistics of scholars, this indirect benefit can increase the market share of enterprises by about 15%; it can gain the recognition of society and traders with advanced digital trading mode and digital management model, so as to improve social and economic benefits.

#### **4.2.3 Potential benefits**

Sometimes the benefits that digitalization brings to enterprises are long-term and significant, with subtle effects and strong momentum. From a macro perspective, this is the potential benefit.

## **5 RECOMMENDATIONS FOR JD'S DIGITAL TRANSFORMATION**

### **5.1 JD should Reduce the Cost of Digital Transformation**

The analysis of JD's financial statements shows that digital transformation wastes a lot of money, and the difficulty in returning funds leads to liabilities and a slight decrease in the current ratio from 2022, although it still has enough current assets to cover its current liabilities, although this ability is slightly weakened relative to the previous year. A decline in the current ratio may indicate a decrease in the company's current assets or an increase in current liabilities and continues to decline in 2023, the company is able to service its short-term debt, but its solvency has weakened significantly, and it is possible that the company's financial position is deteriorating or that its debt management strategy has become more aggressive. This could increase the company's short-term debt service risk. It is suggested that JD may consider reducing the cost of digital transformation and refinancing its capital with the capital it already has to make it liquid and improve the company's solvency.

### **5.2 JD should Innovate the Path of Digital Transformation and Deepen Digital Empowerment**

From this paper, we look at the JD digital transformation development road has experienced a total of four stages, mainly around the development of technological innovation and the development of the operating model of these two aspects. 2022 began the development of the retail model, and now it is a more mature model, the development of the era of technological rapid change, JD also needs a new digital transformation development. The suggestion is that JD can accelerate the use of new AI technology, innovative digital transformation development road. Through the study found that AI technology also has its own advantages, and as the industry leader JD, always leading the progress of science and technology, so JD can take artificial intelligence technology as the core, and actively promote the intelligent transformation and upgrading, widely used AI, and the combination of multiple industries.

### **5.3 JD should Strengthen the Introduction of Scientific and Technological Talents**

With the popularization of 5G, IoT, edge computing and other technologies, the demand of enterprises for digital talents has shown explosive growth. Digital talents have become the key to the development of the industry in areas such as human data analysis, cloud computing platform construction, and artificial intelligence applications. Digital talent is an important force for social progress, so it is recommended that the logistics industry should have a deep understanding of digital talent, expand the recruitment of digital talent[13] and increase the digital training of existing employees to improve their digital skills and thinking.

## **6 CONCLUSION**

In summary, we can conclude that the digital transformation of JD has a positive effect on the financial performance of enterprises, after the digital transformation of JD enterprises, the market found that the market did respond positively in the short term, and from the aspect of net profit, JD has changed from a loss-making state to a profitable state. It not only addresses the challenges in the digital transformation of logistics companies from a financial accounting perspective, but also provides companies with strategies to effectively address these challenges. This project scenario reflects the great potential of digital transformation in enhancing enterprise performance and competitiveness, and therefore, we encourage logistics enterprises to actively adopt digital transformation and incorporate it into their long-term strategic planning.

## **COMPETING INTERESTS**

The authors have no relevant financial or non-financial interests to disclose.

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